STATE OF CALIFORNIA
GEORGE DEUKMEJIAN, *Governor*

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION
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June 20, 1989

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COMPREHENSIVE ON-SITE ASSESSMENT - MONADNOCK COMPANY FACILITY CITY OF INDUSTRY (CAO 88-057)

Your revised workplan, received June 28, 1988, was reviewed earlier and was determined to be incomplete. A comprehensive workplan to determine lateral and vertical extent of on-site soil and water contamination deriving from site practices was to be provided as item No. 5 of CAO 88-057. This item consisted of three main elements: 1) a facility audit, 2) continued unsaturated zone investigation, and 3) on-site saturated zone investigation. Staff decided to withhold the review until adequate work was performed on the first items within the CAO. Since you have now delineated the lateral and vertical extent of contamination in unconsolidated material in the original excavation, completed verification sampling and are currently approved for backfilling and capping, the ground water assessment review will now be released.

The following critical items must be properly addressed in a further workplan revision:

FACILITY AUDIT

1. A proposed formal site audit, determining past and present use, storage, and disposal of chemicals was required to be part of the workplan. It was not included. The site history provided, while quite detailed, is not a formal site audit. At a minimum the site audit must include the following:

   a. Describe utilization of chemicals before and after purchase of site.

   b. Indicate changes in the product line and chemical usage in a chronology.

c. Provide copies of all waste manifests over interval of operation.

d. Describe in detail chemical use, storage and disposal for period of ownership(s).

e. Provide copies of all changes to physical plan relative to handling, storage, use, and disposal of chemicals.

f. Provide copies of all chemical analyses of effluent or waste performed by any parties such as Anacon Laboratories or L. A. County Sanitation Districts.

g. Provide copies of all correspondence with or citations from local Regional or State Regulatory Agency concerning physical alteration to the facility or storage, handling and disposal of chemicals.

h. Provide names and addresses of all waste haulers and chemical suppliers utilized by Monadnock.

2. The site history lacks crucial detail in several areas:

a. 3.62 acres of undeveloped land adjoining the facility, described as having a surface of uncultivated dormant earth, actually contains a massive stockpile. This was indicated in a discussion with a long term employee as resulting from the excavation of a driveway to Arenth Avenue. Based on affidavits supplied by you, this driveway appears to have been graded through the area described as a "swamp" and as being flooded upon numerous occasions by site discharges.

b. Six or seven vapor degreasers reportedly operated from 1966 to 1972. All of the history associated with their operation and decommissioning must be provided. Specifically describe operation, use of floor drains, waste solvent and sludge disposal, etc..

c. An industrial waste clarifier is currently utilized. Provide all relevant data regarding its operation and layout, e.g. construction details, installation dates, operation, chronology of chemicals disposed, and effluent line details.

UNSATURATED ZONE

Potential sources associated with the former vapor degreasers, existing clarifier and containments, heat treat operations, chemical laboratory, former barrel storage, below grade process and industrial waste lines, stockpiled soil, etc., are not included in the workplan. There is a single source bias to the workplan presented:

1. It was required in the Order to determine that no other on-site soil sources exist. Given some physical evidence, the partial site history and the affidavits provided, multiple sources may exist. Passive soil gas data indicates possibility of further source areas. The proposed borings do not address this issue.

2. It was required in the Order that possible on-site soil sources for contaminated water in MW-3 be investigated. A single soil boring/piezometer, P-3, is proposed between MW-3 and MW-7. This is inadequate to address the requirement.

3. Based on information received during the site inspection and provided to us in the form of affidavits of longterm employees, several other potential sources can be postulated: 1) contaminated soils from the driveway and "swamp" stockpiled upgradient of MW-3, 2) in-place contaminated soils along the driveway where the "swamp" drained, 3) the industrial waste clarifier piping run to Railroad Avenue, 4) prior waste disposal on the 3.62 acre parcel during the period 1969 to present.

4. The following, represent some areas of concern which have not yet been investigated.

    a. Clarifier and associated piping

    b. Piping run from clarifier to industrial waste sewer on Railroad Avenue

    c. Area underlying former vapor degreasers and associated floor drains.

    d. Heat treat area and associated underground piping.

    e. Dock area

f. Overflow basins

g. Drum storage at rear of main building

h. South side of building near SW corner

ON-SITE SATURATED ZONE

1. Four monitoring well/piezometers are proposed a short distance off-site in the Presto Food right-of-way for Fullerton Road. Only one additional on-site monitoring well is proposed. Neither the number, depths or the locations of the proposed monitoring wells satisfy the Order's requirement to determine the lateral and vertical extent of on-site ground water contamination. In addition the drilling and construction proposed do not meet appropriate protocols.

2. Delineation of lateral extent of on-site water contamination in the upper saturated zone was required by the Order. The combination of existing on-site monitoring wells and the single proposed additional well do not define the lateral extent of on-site contaminated ground water along the downgradient site boundary. The four proposed off-site wells are not a substitute, in that the spacing and staggered depths leave gaps in the definition of contaminant distribution. Well clusters are required along the downgradient property boundary to define contaminant distribution in the various horizons of the saturated zone.

3. Delineation of vertical extent of on-site contamination in the uppermost saturated zone is required by the Order. This requirement has been partially met with the abortive MW-10 and the completed MW-11. Contaminated ground water was verified to the Puente Formation bedrock in the deepest well, (90 + feet). Determination of cross-sectional distribution of contaminants requires additional clustered wells.

4. Determination of contamination of any underlying saturated zone(s) is required by the Order. This requirement has been met. The June report provided data indicating that only one saturated zone, with hydrologic continuity between the finer grained upper horizons and coarser grained lower horizons, is present and that all

horizons are contaminated. The lithologic logs, imply sufficient physical and hydraulic differences to require separate monitoring and aquifer testing.

5. Determination of specific aquifer characteristics for uppermost saturated zone as required by the Order. The site assessment workplan contained no elements to meet this requirement. Estimates as to permeability, were included in the June 1988 report. They are not sufficient for evaluating the site-specific problem. Appropriate response to this element of the Order is crucial to any subsequent ground water remediation.

6. Hydraulic connectivity existing between saturated units is required by the Order. This has been partially met. A single saturated unit is postulated which contains several discrete but connected horizons. Elevation data in the well net are the basis for the inference of connectivity. Wellhead elevation survey and benchmark descriptions must be provided. Well clusters must be installed as part of this site assessment workplan before this element of the Order is complete.

7. On-site containment and off-site disposal plans for development and purge water are not described in the workplan. The June report does not provide an explanation of the disposal of contaminated water from the installation and development of MW-10 and MW-11.

8. The site assessment does not indicate any response to monitoring at the required intervals. The Order requires bi-monthly monitoring.

9. The present Order has not required performance of off-site investigation to determine the extent to which site derived contamination has affected the aquifer downgradient from the site. A workplan to perform off-site investigation, will be required in a revised Order. This will require you to specifically address the following: a) off-site lateral and longitudinal extent of contamination, b) specific estimates of water quality and quantity relative to site-derived contamination, c) downgradient vertical extent of site-derived contamination, and d) scheduled monitoring of surface water and subdrains of San Jose Creek.

10. The workplan for site assessment received on June 1988, is dominated by off-site work components. Until the comprehensive on-site workplan is submitted, approved and work progressing, an off-site workplan will not be accepted. However, the following off-site specific comments on the June submittal can be made at this time:

    a. The proposed locations of the borings are unrealistic. Cluster wells are required in situations where contaminants must be traced through three dimensions. Large lateral separations between individual wells of a deep/shallow cluster pair are not appropriate.

    b. Depths of any proposed wells must be guided by existing data concerning the stratigraphy. Two of the proposed monitoring wells (MW-12, and MW-13) are proposed at depths of 70-80 feet BGS, ostensibly to monitor deeper horizons. However, the coarse grained horizon, identified in earlier work, is at 90-100 feet bgs.

11. You are required to determine hydraulic conductivity existing between any discrete saturated units. This was not addressed.

12. An evaluation of the hydraulic relationship of on-site saturated units to San Jose Creek was required. No part of the workplan deals with this.

A revised workplan is due at this agency by July 10, 1989. If you have any questions, please contact Philip Chandler at (213) 620-6091.

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